

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **LISTING OF CLAIMS:**

1.-41. (Cancelled)

42. (New) A chromatographic separation method for separating a component from at least one other component in a solution comprising a mixture comprised of said component and said at least one other component, wherein said component and said at least one other component are selected from the group consisting of arabinose, rhamnose, glucose, xylitol, erythritol, inositol, mannitol, glycerol and betaine; wherein the method comprises at least one chromatographic separation step with a weakly basic anion exchange resin for separating said component from said at least one other component wherein said step comprises

feeding said solution into a chromatographic column filled with the weakly basic anion exchange resin having an average particle size of 100-2000 micrometers, eluting said column with water and recovering a product fraction or product fractions, where the content of said component is higher than in the solution fed into the chromatographic separation step.

43. (New) A chromatographic separation method for separating rhamnose from at least one other component in a solution comprising a mixture comprised of rhamnose and said at least one other component, wherein said at least one other component is selected from the group consisting of xylose, arabinose, glucose, xylitol, erythritol, inositol, mannitol, glycerol and betaine; wherein the method comprises at least one chromatographic separation step with a weakly basic anion exchange resin for separating rhamnose from said at least one other component, wherein said step comprises

feeding said solution into a chromatographic column filled with the weakly basic anion exchange resin having an average particle size of 100-2000 micrometers, eluting said column

with water and recovering a product fraction or product fractions, where the content of rhamnose is higher than in the solution fed into the chromatographic separation step.

44. (New) A chromatographic separation method for separating rhamnose from a component selected from arabinose and xylose in a solution comprising a mixture comprised of rhamnose and at least one of arabinose and xylose, wherein the method comprises at least one chromatographic separation step with a weakly basic anion exchange resin for separating rhamnose from at least one of arabinose and xylose, wherein said step comprises

feeding said solution into a chromatographic column filled with the weakly basic anion exchange resin having an average particle size of 100-2000 micrometers, eluting said column with water and recovering a product fraction or product fractions, where the content of rhamnose is higher than in the solution fed into the chromatographic separation step, and optionally a product fraction or product fractions, where the content of at least one of arabinose and xylose is higher than in the solution fed into the chromatographic separation step.

45. (New) A chromatographic separation method for separating betaine from a component selected from inositol, glycerol and mannitol in a solution comprising betaine and at least one of inositol, glycerol and mannitol, wherein the method comprises at least one chromatographic separation step with a weakly basic anion exchange resin for separating betaine from at least one of inositol, glycerol and mannitol, wherein said step comprises

feeding said solution into a chromatographic column filled with the weakly basic anion exchange resin having an average particle size of 100-2000 micrometers, eluting said column with water and recovering a product fraction or product fractions, where the content of betaine is higher than in the solution fed into the chromatographic separation step, and optionally a product fraction or product fractions, where the content of at least one of inositol, glycerol and mannitol is higher than in the solution fed into the chromatographic separation step.

46. (New) A chromatographic separation method for separating inositol from a component selected from glycerol and mannitol in a solution comprising inositol and at least one of glycerol and mannitol, wherein the method comprises at least one chromatographic separation step with a

weakly basic anion exchange resin for separating inositol from at least one of glycerol and mannitol, wherein said step comprises

feeding said solution into a chromatographic column filled with the weakly basic anion exchange resin having an average particle size of 100-2000 micrometers, eluting said column with water and recovering a product fraction or product fractions, where the content of inositol is higher than in the solution fed into the chromatographic separation step, and optionally a product fraction or product fractions, where the content of at least one of glycerol and mannitol is higher than in the solution fed into the chromatographic separation step.

47. (New) The method according to claim 42, wherein the method comprises an additional chromatographic separation step with a column filled with a weakly acid cation exchange resin.

48. (New) The method according to claim 42, wherein the method comprises an additional chromatographic separation step with a column filled with a strongly acid cation exchange resin.

49. (New) The method according to claim 42, wherein the weakly basic anion exchange resin is an acrylic-based resin.

50. (New) The method according to claim 42, wherein the weakly basic anion exchange resin is based on a resin selected from the group consisting of polystyrene resins, epichlorohydrin-based anion exchange resins, aminated products of phenol or formaldehyde resins, aliphatic amines and ammonia polycondensation resins.

51. (New) The method according to claim 42, wherein the pH of the feed solution is on the acidic side of the pH range.

52. (New) The method according to claim 42, wherein the method is a batch process.

53. (New) The method according to claim 42, wherein the method is a simulated moving bed system.

54. (New) The method according to claim 53, wherein the simulated moving bed system is continuous.
55. (New) The method according to claim 53, wherein the simulated moving bed system is sequential.
56. (New) The method according to claim 42, wherein the particle size of the weakly basic anion exchange resin ranges from 100 to 400 micrometers.
57. (New) The method according to claim 47, wherein the chromatographic separation step with a weakly acid cation exchange resin is carried out before the chromatographic separation step with a weakly basic anion exchange resin.
58. (New) The method according to claim 57, wherein the chromatographic separation step with a weakly acid cation exchange resin comprises weakly acid separation.
59. (New) The method according to claim 51, wherein the pH of the feed solution is from 3 to 5.
60. (New) The method according to claim 42, wherein the weakly basic anion exchange resin has been regenerated into  $\text{SO}_4^{2-}$  form.
61. (New) The method according to claim 42, wherein the solution comprising the mixture that is fed into the chromatographic column is selected from the group consisting of hydrolysates and extracts from plants.
62. (New) The method according to claim 61, wherein the hydrolysates and extracts from plants are selected from biomass hydrolysates, molasses, vinasse, xylose process streams, sucrose process streams, starch based streams and side streams thereof.
63. (New) The method according to claim 42, wherein the resin is crosslinked with an aromatic crosslinker.

64. (New) The method according to claim 63, wherein the resin is crosslinked with divinylbenzene.
65. (New) The method according to claim 64, wherein the crosslinking degree is from about 1 to about 10 weight-% divinylbenzene.
66. (New) The method according to claim 65, wherein the crosslinking degree is from about 3 to about 8 weight-% divinylbenzene.
67. (New) The method according to claim 42, wherein the resin can be crosslinked with an aliphatic crosslinker selected from the group consisting of isoprene, 1,7-octadiene, trivinylcyclohexane, diethylene glycol divinylether, N,N'-methylenebisacrylamide, N,N'-alkylenebisacrylamides, ethyleneglycol dimethacrylate, di-, tri-, tetra-, pentacrylate and pentamethacrylate.
68. (New) The method according to claim 42, wherein the temperature of the column, the feed solution and water is between 10 and 95°C.
69. (New) The method according to claim 42, characterized in that the temperature of the column, the feed solution and water is between 40 and 95°C.
70. (New) The method according to claim 42, wherein the water is condensate water.